S/N 09/089,098

Aj 12700 /14

PATENT # 20

Atty. Docket No. RA998003   *9//8/02*

CERTIFICATE OF MAILING (37 C.F.R. 1.8(a))
I hereby certify this correspondence is being deposited with the United States Postal service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on September 5, 2002,
by   Karen Orzechowski   Signature: *Karen Orzechowski*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: R. L. Bertram	Date: September 5, 2002
Serial No.: 09/089,098	IBM Corporation IP Law Dept. 9CCA/B002
Filed: 6/2/1998	P.O. Box 12195 Res. Tri. Park, NC 27709
For: Method and System for Reducing the Horizontal Space Required for Displaying a Column Containing Text Data	Group No.: 2176 Examiner: Cong Lac T. Huynh

Asst. Commissioner for Patents
Washington, DC 20231

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SEP 1 6 2002

Technology Center 2100

TRANSMITTAL OF APPEAL BRIEF
(PATENT APPLICATION-37 CFR 1.192)

Sir:

1.   Transmitted herewith in triplicate is the APPEAL BRIEF in this application with respect to the Notice of Appeal filed on July 12, 2002.

2. STATUS OF APPLICANT

This application is on behalf of

_X_   other than a small entity
___   small entity
verified statement: ___ attached ___ already filed

3. FEE FOR FILING APPEAL BRIEF

Pursuant to 37 CFR 1.17(f) the fee for filing the Appeal Brief is:
___ Small entity $160.00
_X_ Other than a small entity $320.00
                    Appeal Brief fee due: $ 320.00_____

4. EXTENSION OF TERM

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136 apply.

___ (a) Application petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

Extension (months)	Fee for other than a small entity
___ one month	$ 110.00
___ two months	$ 400.00
___ three months	$ 920.00
___ four months	$1440.00

_X_ (b) Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

5. TOTAL FEE DUE

The total fee due is:
Appeal brief fee __$320.00__
Extension fee (if any) _____
TOTAL FEE DUE ___$320.00__

6. FEE PAYMENT

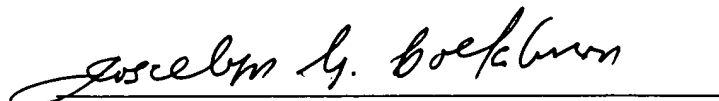___ Attached is a check in the sum of $ _____
_X_ Charge Account No. 09-1990 the sum of **$320.00**
(a duplicate of this transmittal is attached)

7. FEE DEFICIENCY

_X If any additional extension and/or fee is required, this is a request therefor and to charge Account No. 09-1990.

___ If any additional fee for claims is required, charge Account No. 09-1990.

Joscelyn G. Cockburn,
Attorney of Record Reg. No.: 27,069
Tel: 919-543-9036 / Fax: 919-254-2649

S/N 09/089,098

PATENT
Atty. Docket No.: RA998003

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Serial No.: 09/089,098	IBM Corporation IP Law Dept. 9CCA/B002
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For: Method and System for Reducing the Horizontal Space Required for Displaying a Column Containing Text Data	Group No.: 2176 Examiner: Cong Lac T. Huynh

Assistant Commissioner for Patents
Washington, DC 20231

APPEAL BRIEF

Sir:

This is an Appeal from the Final Rejection of Claims 42-73, 75-80 and 82-84.

An Appendix containing each of the appealed claims is attached.

I. REAL PARTY IN INTEREST

The real party in interest is the Assignee, International Business Machines

Corporation (IBM).

1

II.   RELATED APPEALS AND INTERFERENCES

Appellant or Appellants' legal representative or assignee has no personal knowledge of other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III.   STATUS OF CLAIMS

The appealed claims are 42-73 and 82-84.

Claim 81 stands allowed and will not be addressed further in this document.

Claims 1-31 were cancelled without prejudice upon the filing of the present CPA.

Claims 32-41 and 74 are deemed drafted to distinct invention and are withdrawn from consideration.

Claims 75-80 are allowable for reasons set forth in IV. below and in the Amendment After Final dated September 5, 2002 and filed concurrently herewith.

IV.   STATUS OF AMENDMENT

Subsequent to the Final Rejection, appellants have filed the Amendment After Final dated September 5, 2002 which reflects an agreement on August 12, 2002 with the examiner rendering moot the rejection of Claims 75-80 under 35 USC 112, second paragraph. The amendment changes the wording in (d), (e) and (f) Claim 75 to comply with suggestions made by the examiner in the Final Office Action. The changes do not narrow the scope of the claims.

The Amendment After Final removes the only rejection against Claims 75-80. Therefore, with no outstanding rejection against them, Claims 75-80 are allowable and are not appealed.

V.   SUMMARY OF INVENTION

The invention relates to computer generated displays in general and in particular to the tables used by computer network administrators to display performance data relative to resources within the network. The tables includes one or more columns with each column containing one or more entries of text data. The major problems with these tables are that they are usually too large and cannot fit on the screen of a display device, pages 2-4 appellants' specification.

The present invention solves the above problems by shortening the horizontal dimension of text data thereby enabling the table to fit on the display screen.

The present invention provides a method, computer program and system for reducing an amount of horizontal space required when displaying a plurality of columns on a display screen. At least one column of the plurality of columns has at least one entry containing text data. The method and system comprise obtaining the at least one entry from the at least one column, abbreviating a width of the at least one entry, and determining if there is another entry containing text data. The method and system further comprise repeating the steps of obtaining the at least one entry, abbreviating the at least one entry and determining if there is another entry until all of the at least one entries are abbreviated. The method and system further comprise displaying the at least one column having the at least one abbreviated entry, page 11, appellants' specification.

Alternate embodiments of the method used to abbreviate the entry are set forth on pages 12 and 13 and are shown in Figures 5 and 6. The method used to perform the abbreviation is described on last two lines of page 13 through first three lines of page 16 and shown in Figure 7.

According to the system and method disclosed herein, the present invention can display information in a format more easily viewed by a user.

VI. ISSUES

The issues presented are:

1.   Whether Claim 42 is patentable under 35 USC 112, first paragraph.

2.   Whether Claims 42-73 and 82-84 are patentable under 35 USC 103(a), in view of Figure 4, appellants' specification.

VII. GROUPING OF CLAIMS

This appeal present two(2) groups of Claims:

Group 1 consisting of Claim 42

Group 2 consisting of Claims 43-73 and 82-84. The claims do not stand or fall together.

VIII. ARGUMENT

A.   REJECTION OF CLAIM 42

1)   EXAMINER'S CONTENTION

Claim 42 remains rejected under 35 USC 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected to make and/or use the invention.

The examiner's argument in support of the rejection is set forth on pages 2 and 3 of the office action. The argument appears to be somewhat convoluted but to the extent understood it seems as if the examiner defines space as a first character type, lower case letter as third character type and lower vowel as second character type. As to the second character type the examiner comments: "the second character type can be any type since it is not defined". The examiner then applied claim 42 based upon the

definition of the different character types to Figure 2 and concluded that since application of the defined character types did not result in Figure 8 of appellants' specification claim 42 is not supported by the specification.

B.   APPELLANTS' CONTENTION

1)   EXAMINER ERRED IN CONSTRUING CHARACTER TYPE

It appears as if the examiner erred in defining character types. In particular, the examiner states: ". . . and at least one lower vowel (the 2nd character type can be any type since it is not defined)". This statement appears to be an error and deviates from what appellants' claim 42 and appellants' specification teach (see page 14, lines 3-5, amended by Amendment dated June 2, 1998, appellant's specification). In particular, claim 42 teaches the second character type as a lower case vowel. With this definition the examiner's statement to wit: "the second character type can be any type since it is not defined" appears to be in error since the character type is clearly defined in the claim and the specification as lower case vowel.

ERROR IN EXAMINER'S SUPPORT ARGUMENT

In addition, appellants argue the approach and/or argument used by the examiner to support the rejection appears to be flawed. The examiner seems to apply Claim 42, with the error set forth in B.1), to Figure 2 table (prior art) to generate Figure 8 (appellant's specification). Figure 8 discloses a table which is abbreviated from Figure 2 according to the teachings of applicant's invention. However, Figure 8 was not generated as a result of application of claim 42. Instead, Figure 8 is generated by the abbreviated method set forth in Figure 7 and page 13, last two lines through page 16, of appellant's specification. A step by step application of Figure 7 to Figure 2 is given in the amendment dated June 2, 1998 and incorporated herein by reference. Appellant is

permitted to provide claims of different scope within the application. If the examiner's position were to be upheld then appellants' freedom to cover the invention effectively by using claims of different scope would be destroyed because the claims of different scope would not necessarily produce a result such as Figure 8.

Instead of reading claim 42 on the prior art Figure 2 to generate the results shown in Figure 8 the proper inquiry for a rejection under 35 USC 112, first paragraph, is whether or not appellant's specification supports the claim. When this test is applied to claim 42 the answer is a resounding Yes. In particular the preamble of claim 42 describes the environment in which appellant's invention is implemented and is covered in the background teachings of appellant's invention discussed on pages 1-4. Defining character types (step A) are described on first paragraph page 14 of appellant's specification. Likewise, steps B, C, C1, C2, C3 are disclosed in Figures 5, 6, and 7 and described on pages 12, line 2 through first 3 lines of page 16. It is appellant's position that since the specification supports the claim then it is patentable under 35 USC 112, first paragraph.

C.   REJECTION OF CLAIMS 42-73 AND 82-84

1)   EXAMINER'S CONTENTION

Claims 42-73 and 82-84 are rejected under 35 USC 103(a) as being unpatentable over appellant's admitted prior art, Figure 4 of the specification. To support the rejection the examiner seems to read independent claim 42 on Figure 4. The examiner concludes: "the prior art does not explicitly disclose defining a first character type as a space, a second character as a lower case vowel, and a third character type as a lower case letter. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the prior art to include defining the character types as a space, a lower vowel, and lower character

6

since removing the character of these types as disclosed above suggests defining these character types."

D.   APPELLANTS' CONTENTION

1)   EXAMINER FAILED TO USE PRIOR ART REFERENCE AS A WHOLE

The examiner's selection of Figure 4 alone as the prior art is in error. This is particularly important when the whole or complete teachings of the prior art would lead an artisan away from the teachings of the claimed invention. Because Figure 4 (prior art) is taken from appellant's specification the other teachings related to Figure 4 should also be considered in assessing obviousness under 35 USC 103(a). The related teachings of the prior art which the examiner failed to consider include Figures 3 and 4, page 8, line 9 through page 9, line 20, appellants' specification. When the prior art is read as a whole it clearly teaches the text material in figure 4 were truncated to generate the table in Figure 4 and not by abbreviation (appellant's technique) as suggested by the examiner.

It is appellants' contention that the examiner erred in concluding that Figure 4 is generated by subtracting a defined character type as the examiner seems to suggest. Figure 4 only shows a table generated from the prior art method set forth in Figure 3. In Figure 3 the shortening of the column heading is based upon truncation[1] and not by abbreviation as discussed by appellant's invention. With truncation a portion of the text data is cut off at one end so the remaining portion matches a predefined width. Truncation is a method that does not subtract character type by character type as the examiner seems to suggest. Appellant wishes to point out that the showing in Figure 4

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[1]The distinction between truncation and abbreviation is discussed in the Preliminary Amendment filed with a CPA, dated June 2, 1998, and incorporated herein by reference.

is described on pages 8-9 of appellant's specification. Because Figure 4 is shown in appellant's specification the teaching for Figure 4 in the specification clearly indicates that the reduced width of the column headings in Figure 4 are the result of truncation rather than abbreviation as is recited in claim 42. The examiner has not presented any concrete evidence that would indicate otherwise. Therefore, claim 42 is not obvious in view of the teaching of Figure 4.

2.   REFERENCE TEACHES AWAY FROM APPELLANT'S CLAIMED INVENTION

In addition, appellant argues the reference teaches away from appellant's invention. Figure 4 and related teachings set forth above (prior art) teaches a table generated by the method in Figure 3 applied to the table in Figure 2. The description of Figure 4 is set forth on pages 8-9 of appellant's specification. As argued in the specification and shown in Figure 3 the shortening of the column headings in Figure 4 is based upon truncation. In truncation a portion of the expression is chopped off without a character-by-character removal (termed 'abbreviation') taught in appellant's invention. Because the teaching in Figure 4 is based upon truncation whereas appellant's invention is based upon abbreviation which is a character-by-character removal of the defined character type then the reference is in apposite to that of appellant's invention. Because the teaching in the prior art (Figure 4) is in apposite to appellant's claim the claims are clearly patentable over the art of record.

3)   NOVEL PROCESS STEPS STRUCTURE ETC. AND SOLUTION OF PROBLEM INDICATE UNOBVIOUSNESS

Furthermore, appellant argues the claims are patentable over the prior art (Figure 4 and associated teaching) in that the claimed invention provides novel process steps and solves problems not disclosed in the prior art. As argued in the specification

page 9, lines 8-20, the problem with the prior art is that necessary information is lost when the prior art truncation method is used to shorten text data. In particular, different column headings have the same shortened expression and as a result someone viewing the display is confused as to what each column represents. As can be seen from the demonstration in Figure 8 appellant's invention which abbreviates the column heading provides the table with headings in which a viewer can easily distinguish the element that are being monitored in the network and is being displayed on the screen. It is appellants' contention that the novel process step (i.e. defining character type etc.) coupled with solving the prior art problems are evidence of unobviousness. As a consequence the claims are patentable over the art of record.

4)   NOVEL PROCESS STEPS, STRUCTURE ETC. AND BENEFITS INDICATE UNOBVIOUSNESS

Finally, it is appellant's contention the claims are unobvious because they use novel structure and process steps that provide benefits not present in the prior art. The novel steps include, among others, defining character types and abbreviation technique set forth in the claims to reduce horizontal space occupied by text data. The benefits include displaying a table with columns in which abbreviated text data is representative of the full form and the abbreviated text in each column is different from abbreviated text in the other column (see page 9, lines 8-20, Figure 8, appellant's specification). It is appellant's contention different structure with benefits are evidence of non-obviousness.

E.   REJECTION OF CLAIMS 43-48 AND 84

1)   EXAMINER's CONTENTION

Regarding claims 43 and 44 the examiner relied on Figures 2 and 4 (appellant's specification) as prior art. Even though the examiner admits the prior art does not

explicitly disclose step (c), the examiner concludes: " . . . the fact that every entry of the column headings are abbreviated shows that for each entry the system determines if there is another entry in the table to perform the abbreviation.

Regarding claims 45-48 the examiner seems to conclude, without any concrete support, Figure 4 of appellant's specification teaches each and every one of the claims.

2)   APPELLANT'S CONTENTION

As to claims 43 and 44, appellants argue they are unobvious over Figure 4 (prior art) because the process used in Figure 4 to reduce the width of the entry is different and in apposite to the process used in the claims. In the claims the process used is "abbreviation" (step b) whereas in the Figure 4 prior art the process is "truncation" (Figure 3, 58).

As argued above and incorporated herein by reference the prior art should be considered as a whole. In this respect all prior art teachings in appellant's specification including the figures should be considered and not only Figure 4. When the prior art is taken as a whole Figure 3 shows the prior art technique or method used to generate the table in Figure 4 (see page 8, lines 9 through page 9, line 20). The prior art teachings clearly indicates in truncation a width of a predefined number of characters is set and excess number of characters are cut off (truncated) in one step 58 (Figure 3).

In abbreviation as set forth in claims 43 and 44 reduction is done by removing individual or separate defined character. Thus, abbreviation as recited in the claim covers a different process from the prior art and makes claims 43 and 44 unobvious.

In addition, appellant argues claims 43 and 44 must be read in light of the specification. It is clear from the teachings of the specification (see for example Figure 5, pages 11-12) that the recitation "(b) abbreviating a width of the at least one entry;" (Claim 43) teaches a reduction method different from the prior art reduction method of truncation. As such claims 43 and 44 are not obvious in view of the truncation method

of the prior art.

It is often said the patentee is his/her own lexographer. In this regard the patentee may define a word to mean whatever he/she said it is. As pointed out above appellant's specification makes the distinction between "truncation" and "abbreviation" quite clear, i.e. they are different process steps. (See for example page 12, lines 18-20). As a consequence claims 43 and 44 are unobvious in view of the prior art.

Moreover, appellant further argues that even the dictionary definition of 'abbreviation' and 'truncation' clearly indicate that there is a distinct difference between the two. The American Heritage Dictionary of the English Language defines 'abbreviation' and 'truncation' as follows:

abbreviation: 1. the acts of or product of abbreviating. 2. A shortened form of a word or phrase used chiefly in writing to represent the complete form.

truncate: 1. To shorten by or as if by cutting off the end or top; to lop.

It is clear from these definitions that truncations and abbreviations are different words meaning different things and when used within a claim clearly distinguishes from one another. In view of the difference, applicant argues that 'abbreviation' as used in the claim provides a new process solving the problems that are associated with truncation and set forth on pages 8 and 9 of applicant's specification. Since applicant's invention by using abbreviation solves these problems, it is clear evidence that the prior art teaching as set forth in Figure 4 would not lead an artisan to applicant's invention of abbreviation.

In addition, applicant argues that by solving the problem associated with truncation applicant provides a new method (i.e. abbreviation) and benefits not present in the prior art. The benefits from applicant's invention are partially shown in Figure 8

11

and are set forth on pages 12 and 13 of applicant's specification. It is applicant's position that a new method coupled with benefits not present in the prior art are again indicia of unobviousness.

Finally, applicant argues that the examiner failed to make out a <u>prima facie case of obviousness</u>. This is so because the examiner gives no logical or concrete reasons why an artisan viewing the teaching in Figure 4 would arrive at the invention claimed by applicant. It is settled law that in order for the prior art to render claims obvious there should be some suggestion or logical reasons why an artisan viewing that prior art, in this case Figure 4, would arrive at applicant's claims. The examiner has failed to give concrete or logical reasons and as a consequence the claims are not obvious in view of Figure 4.

Finally, appellant argues claims 43 and 44 unobvious and patentable over the prior art for means set forth in D.1), D.2), D.3) and D.4) above and incorporated herein by reference.

As to claims 45-48, they depend on claims 43 and 44 and are patentable over the prior art for reasons set forth in this section regarding patentability of Claims 43 and 44.

In addition, claims 45-48 are patentable distinct because they call for specific characters to be in the heading and removing the characters if they are present in the heading. In essence claims 45-48 further identify detailed steps of the abbreviation methods which provide benefits (set forth above). As a consequence claims 45-48 are patentable in their own rights over prior art of record.

With respect to claim 84, it depends on claim 43. The examiner seems to argue Figure 4 discloses the abbreviating step (Final Office Action mailed 03/12/2002, pages 9 and 10).

Appellants respectfully disagree with the examiner's position. It is appellants' contention claim 84 further defines the abbreviation step by requiring defining individual

characters until a predefined width is reached. No such teaching is suggested or disclosed in the prior art which uses truncation. As a consequence the arguments set forth above are equally applicable and incorporated herein by reference.

In addition claim 84 is patentable distinct for teaching sequential removal of predefined characters.

F.   REJECTION OF CLAIMS 49-56

1)   EXAMINER'S CONTENTION

Regarding claim 49, the examiner argues Figure 4 (prior art disclosed in appellant's specification) teaches (b) and (c). The examiner admits the reference (Figure 4) does not teach (a) but argued it would be obvious to one of ordinary skill in the art to combine "to specifically point which character type in the string needs to be removed during the abbreviation".

Regarding claim 50 it is argued that it would be obvious to one of ordinary skill in the art to recognize entries in Figures 2 and 4 are column headings.

Regarding claims 51 and 52, the examiner seems to argue the steps in the claims are performed to reduce Figure 2 to Figure 4

Regarding claims 53-54, the examiner seems to read the claims on Figure 4 by removing character types.

Regarding claim 56, the examiner seems to argue Figure 4 teaches truncation.

2.   APPELLANT'S RESPONSE

Claim 49 recites a reduction method in which two character types are defined and subtracted from the text entry. A first character type (not defined) is also subtracted from the entry. By not defining the first character type a user can assign any character type he chooses. This gives the user more flexibility in abbreviating text data. It is

appellant's contention the novel process steps of abbreviation recited in this claim and resulting benefits (flexibility) are evidence of unobviousness.

Still in regards to claim 49, the examiner argues (b) and (c) are disclosed in Figure 4 (prior art). This argument appears to be in error because Figure 4 is generated from truncation and not abbreviation as recited in (b) and detailed in (c) of claim 49. The argument regarding "truncation" and "abbreviation" set forth above is equally applicable and incorporated herein by reference.

In addition, appellant argues combining (b) and (c) (Claim 49) which the examiner alleged is shown in Figure 4 (prior art) with skill in the art, at the time of invention, to provide (a)[2] appears to be IMPROPER especially since the prior art as a whole (discussed above, incorporated herein by reference) teaches truncation which is in apposite to abbreviation as claimed. As a consequence the examiner has not made out a prima facie case of obviousness. Therefore, claim 49 is patentable over the prior art.

Claims 50, 51 and 53 stand or fall with claim 49.

Claims 53-55 call for further limitation on the abbreviation process. As to these claims, the examiner argues Figure 4 (prior art) discloses defining character type and subtracting each character type from headings in Figure 2 to produce Figure 4 (see Final Office Action mailed March 12, 2002, pages 8 and 9.

In response, appellant argues it appears the examiner is using teachings gleaned from appellant's disclosure to support the rejection of claims 53-55. The basis for appellant's position is that the prior art set forth in appellant's specification and relied on by the examiner teaches "truncation" which is in apposite to "abbreviation" taught and claimed by appellant. There is no evidence in the record (provided by the examiner or otherwise) to contradict the clear teachings that Figure 4 (prior art) is generated by

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[2]The examiner admits Figure 4 does not show (a) but relied on skill in the art to provide (a).

truncation. Figure 4 (prior art) is only a figure resulting from a process applied to Figure

2. In addition to the prior art teaching that Figure 4 is generated by truncation, Figure 4

shows evidence that "abbreviation" was not the technique used for its generation. The

evidence is that different columns have the same shortened headings, thus confusing to

someone reading the table. For example, in Figure 4, columns 72 and 74 are both

identified as "Bytes" whereas the non-shortened expressions are "Bytes Received" and

"Bytes Sent". In contrast, when Figure 2 is acted upon by the "abbreviation" techniques

of appellant's invention the resulting Figure 8 generates "Byte P" and "Byte S" which are

different and relates more closely to the full phrase they represent. It, therefore, seems

the examiner's position that the recited process steps are covered in the prior art was

instead not in the prior art but gleaned from appellant's invention.

        This, of course, is contrary to the requirements of 35 USC 103. As the Court

stated in In re Sponnoble, 160 USPQ 237, 243 (CCPA 1969): "The court must be ever

alert not to read obviousness into an invention on the basis of the applicant's own

statements; that is, we must view the prior art without reading into that art appellant's

teachings. In re Murray, 46 CCPA 905, 268 F 2d 226, 122 USPQ 364; In re Sporck, 49

CCPA 1039, 301 F. 2d 686, 133 USPQ 360. The issue then is whether the teachings

of the prior art would, 1n and of themselves and without the benefits of applicant's

disclosure, make the invention as a whole, obvious. In re Leonor, 55 CCPA 1198, 395

F. 2d 801, 158 USPQ 20." (Emphasis Court)

        The inadvertent reading of appellant's invention into the prior art is an error which

should be reversed since absent the error the prior art teaches away from appellants'

invention. As a consequence claims 53-55 are patentable over the art of record.

        Claim 56 is patentable for reasons set forth above.

        In addition, claim 56 is patentable distinct in that it combines both reduction

methods of "abbreviation" and "truncation". Claim 56 calls for truncation if the column

heading is greater than a desired width and none of the defined characters are present

in the column heading. This combination provides a more effective way of reducing column headings. Therefore, claim 56 is patentable distinct and unobvious over the art of record.

G.   REJECTION OF CLAIMS 57-70

1.   EXAMINER'S CONTENTION

The examiner contends claims 57-70 are for computer readable medium of method claims 43-56 and are rejected under the same rationale.

2.   APPELLANT'S CONTENTION

Claims 57-70 are article claims of the method claims discussed above and are patentable over the art of record for the reasons set forth above and incorporated herein by reference.

H.   REJECTION OF CLAIMS 71-73

1.   EXAMINER'S CONTENTION

According to the examiner, claims 71-73 are system claims of method claims 49, 50 and 53-56 and are rejected under the same rationale.

2.   APPELLANT'S CONTENTION

Claims 71-73 are system claims relating to method claims which for reasons set forth above are argued to be patentable over the art of record. Appellant contends claims 71-73 are patentable over the art of record for the same reasons set forth above and incorporated herein by reference.

I.   REJECTION OF CLAIMS 82 AND 83

1.   EXAMINER'S CONTENTION

As to claim 82 the examiner argued Figure 4 (prior art) discloses (b) and (c) but not (a). Regarding (a) the examiner states: "It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have included determining N character types where N is greater than 1 to the prior art since the abbreviation in the prior art shows the removing the characters of different types, which are more than one types of characters. In other words, the N character types applied must be greater than 1."

Regarding claim 83, the examiner argued it is disclosed in Figure 4.

2.   APPELLANT'S CONTENTION

Claim 82 calls for defining N character types and abbreviating a character string by selectively removing characters as set forth in c_1, c_2 and c_3 of the claim.

Appellant contends the examiner's statement that (b) and (c) are disclosed in Figure 4 (prior art) appears to be in error. As argued above and incorporated herein by reference Figure 4 (prior art) does not teach the step by step removal of defined characters as claim 82 recites. Instead, Figure 4 (prior art) is derived from the truncation process set forth in Figure 3 (prior art) and described at page 8, lines 9 through 20. With truncation the entry is processed (pass through) once by cutting off characters that are greater than a desired width. In contrast, abbreviation as claimed requires several passes through the entry removing defined characters on each pass through.

In addition, appellant argues the combination of Figure 4 and skill in the art to render claim 82 obvious appears to be improper since the prior art as a whole teaches away from appellant's claimed invention. An artisan viewing the prior art would not form

17

the combination suggested by the examiner. Finally, appellant argue the reasons set forth above including novel process steps combined with solving problems in Figure 4 and novel process steps combined with benefits are equally applicable and are incorporated by reference.

In view of the above claim 82 is patentable over the art of record.

Regarding claim 83, it depends on claim 82 and is patentable for the same reasons, argued above and incorporated by reference, supporting patentability of claim 82.

In addition, claim 83 is patentable distinct in that it requires the character string remaining after each pass through, removing a character, to be compared with a known character string size and terminate the process if a match occurs. The benefit is that the number of pass through is reduced thus improving system throughput.

CONCLUSION

Based upon the above arguments, the appealed claims define patentable subject matter and are not made obvious by the cited art. As a consequence, the final rejection of Claims 42-73 and 82-84 should be reversed.

Respecfully Submitted,

Joscelyn G. Cockburn, Reg. No. 27,069
Attorney of Record
IBM Corporation
Dept. 9CCA/B002, P.O. Box 12195
Research Triangle Park, NC 27709

JGC:ko
Phone: 919-543-9036
Fax: 919-543-3634

APPENDIX OF CLAIMS

The text of the claims involved in the appeal are:

1   42.   A computer generated method for reducing an amount of horizontal space required

2   when displaying a plurality of column on a display screen, at least one column of the

3   plurality of columns including at least one entry containing text data, the method

4   comprising the steps of:

5   (a)   defining a first character type as a space, a second character type as a

6   lower case vowel and a third character type as a lower case letter;

7   (b)   obtaining the at least one entry; and

8   (c)   abbreviating a width of the at least one entry by

9   (c1)   removing at least one of the first character type if the at least one

10   entry includes the at least one of the first character type;

11   (c2)   removing at least one of the second character type if the at least

12   one entry includes the at least one of the second character type; and

13   (c3)   removing at least one of the third character type if the at least one

14   entry includes the at least one of the third character type.

1   43.   A method for reducing an amount of horizontal space required when displaying a

2   plurality of columns on a display screen, at least one column of the plurality of columns

3   having at least one entry containing text data, the method comprising the steps of:

4   (a)   obtaining the at least one entry from the at least one column;

5   (b)   abbreviating a width of the at least one entry;

6   (c)   determining if there is another entry containing text data;

7   (d)   repeating steps (b) and (c) until all of the at least one entry of the at least

8   one column are abbreviated; and

9   (e)   displaying the at least one column having the at least one abbreviated

10   entry.

1   44.   The method of claim 43 wherein the at least one entry includes at least one

2   column heading.

1   45.   The method of claim 44 wherein the at least one column heading includes a first

2   plurality of characters; and wherein abbreviating step (b) further includes the step of:

3   (b1)   removing at least one character of a second plurality of characters if the at

4   least one column heading includes the at least one character.

1   46.   The method of claim 45 wherein the second plurality of characters further

2   includes a plurality of lower case vowels.

1   47.   The method of claim 44 wherein the at least one column heading includes a

2   plurality of characters, the plurality of characters being capable of containing at least

3   one lower case character not a lower case vowel; and wherein abbreviating step (b)

4   further includes the step of:

5   (b1)   removing the at least one lower case character if the at least one column

6   heading includes the at least one lower case character.

1   48.   The method of claim 44 wherein the at least one column heading includes a

2   plurality of characters, the plurality of characters being capable of containing at least

3   one space; and wherein abbreviating step (b) further includes the step of:

4   (b1)   removing the at least one space if the at least one column heading

5   includes the at least one space.

1   49.   A method for reducing an amount of horizontal space required when displaying a

2   plurality of column on a display screen, at least one column of the plurality of columns

3   including at least one entry containing text data, the method comprising the steps of:

4   (a)   determining a character type;

5   (b)   obtaining the at least one entry; and

6   (c)   abbreviating a width of the at least one entry by

7   (c1)   removing at least one character having a first character type if the

8   at least one entry includes the at least one character and if the character type is the first

9   character type;

10   (c2)   removing at least one lower case character if the at least one entry

11   includes the at least one lower case character and if the character type is a second

12   character type, the second character type being a lower case character; and

13   (c3)   removing at least one space if the at least one entry includes the at

14   least one space and if the character type is a third character type, the third character

15   type being a space.

1   50.   The method of claim 49 wherein the at least one entry further includes at least

2   one column heading.

1   51.   The method of claim 50 further comprising the step of:

2   (d)   repeating steps (b) and (c) for each of the at least one column for a

3   particular character type of the plurality of character types.

1   52.   The method of claim 51 further comprising the step of:

2   (e)   repeating steps (a), (b), and (c) for each of the at least one columns for

3   each of the plurality of character types.

1   53.   The method of claim 52 wherein the at least one character of the plurality of

2   characters removing step (c1) further includes the step of:

3   (c1i)   removing the at least one character having the first

4   character type if the at least one column heading includes the at least one character and

5   if the at least one column heading is wider than a particular column width.

1   54.   The method of claim 53 wherein the at least one lower case character removing

2   step (c2) further includes the step of:

3   (c2i)   removing the at least one lower case character if the at

4   least one column heading includes the at least one lower case character, if the

5   character type is the second character type, and if the at least one column heading is

6   wider than the particular column width.

1   55.   The method of claim 53 wherein the at least one space removing step (c3)

2   further includes the step of:

3   (c3i)   removing at least one space if the at least one column

4   heading includes the at least one space, if the character type is the third character type,

5   and if the at least one column heading is wider than the particular column width.

1   56.   The method of claim 55 wherein the abbreviating step (c) further comprises the

2   step of:

3   (c4)   truncating the at least one column heading if the width of the at least one

4   column heading is greater than the particular column width and if the at least one column

5   heading does not contain any character of the first character type, the second character

6   type, or the third character type.

1   57.   A computer-readable medium containing a program for reducing an amount of

2   horizontal space required when displaying a plurality of columns on a display screen, the

3   plurality of columns including at least one column having at least one entry containing

4   text data, the program comprising instructions for:

5   obtaining the at least one entry of the at least one column;

6   abbreviating a width of the at least one entry;

7   determining if there is another entry containing text data;

8   repeating the instructions for abbreviating the at least one entry and determining

9   if there is another entry containing text data until all of the at least one entry is

10   abbreviated; and

11   displaying the at least one abbreviate entry of the at least one column.

1   58.   The computer-readable medium of claim 57 wherein the at least one entry

2   includes at least one column heading.

1   59.   The computer-readable medium of claim 58 wherein the at least one column

2   heading include a first plurality of characters; and wherein the instructions for

3   abbreviating the at least one column heading further includes instructions for:

4   removing at least one character of a second plurality of characters if the at least

5   one column heading includes the at least one character.

1   60.   The computer-readable medium of claim 59 wherein the second plurality of

2   characters further includes a plurality of lower case vowels.

1   61.   The computer-readable medium of claim 58 wherein the at least one column

2   heading includes a first plurality of characters, the plurality of characters being capable

3   of containing at least one lower case character; and wherein the instructions for

4   abbreviating the column heading further includes instructions for:

5   removing the at least one lower case character if the at least one column heading

6   includes the at least one lower case character.

1   62.   The computer-readable medium of claim 58 wherein the at least one column

2   heading includes a first plurality of characters, the plurality of characters being capable

3   of containing at least one space; and wherein the instructions for abbreviating the at

4   least one column heading further includes instructions for:

5   removing the at least one space if the at least one column heading includes the

6   at least one space.

1   63.   A computer-readable medium containing a program for reducing an amount of

2   horizontal space used when displaying a plurality of columns on a display screen, at

3   least one column of the plurality of columns having at least one entry containing text

4   data, the at least one entry including a first plurality of characters, the program

5   comprising instructions for:

6   (a)   determining a character type;

7   (b)   obtaining the at least one entry of the at least one column; and

8   (c)   abbreviating a width of the at least one entry by

9   (c1)   removing at least one character of a second plurality of characters

10   having a first character type if the at least one entry includes the at least one character

11   and if the character type is the first character type;

12   (c2)   removing at least one lower case character if the at least one entry

13   includes the at least one lower case character and if the character type is a second

14   character type, the second character type being a lower case character; and

15   (c3)   removing at least one space if the at least one entry includes the at

16   least one space and if the character type is a third character type, the third character

17   type being a space.

1.   64.   The computer-readable medium of claim 63 wherein the at least one entry
2   includes at least one column heading.

1   65.   The computer-readable medium of claim 64 further comprising instructions for:
2   (d)   repeating the instructions (b) and (c) for a particular character type of the
3   plurality of character types.

1   66.   The computer-readable medium of claim 65 further comprising instructions for:
2   (e)   repeating the instructions (a), (b), and (c) for each of the plurality of
3   columns for each of the plurality of character types.

1   67.   The computer-readable medium of claim 66 wherein the instructions for
2   removing the at least one character of the plurality of characters (c1) further includes
3   instructions for:
4   (c1i)   removing the at least one character of a second plurality of
5   characters having the first character type if the at least one column heading includes the
6   at least one character, if the character type is the first character type, and if the at least
7   one column heading is wider than a particular column width.

1   68.   The computer-readable medium of claim 67 wherein the instructions for
2   removing the at least one lower case character (c2) further includes instructions for:
3   (c2i)   removing at least one lower case character if the at least
4   one column heading includes the at least one lower case character, if the character type
5   is the second character type, and if the at least one column heading is wider than the
6   particular column width.

1   69.   The computer-readable medium of claim 68 wherein the instructions for

2   removing the at least one space (c3) further includes instructions for:

3   (c3i)   removing at least one space if the at least one column

4   heading includes the at least one space, if the character type is the third character type,

5   and if the at least one column heading is wider than the particular column width.

1   70.   The computer-readable medium of claim 59 wherein the instructions for

2   abbreviating the at least one column heading (c) further includes instructions for:

3   (c4)   truncating the at least one column heading if the at least one column

4   heading is wider than the particular column width and if the at least one column heading

5   does not contain any character of the first character type, the second character type or

6   the third character type.

1   71.   A system for reducing an amount of horizontal space used when displaying a

2   plurality of column on a display screen, at least one column of the plurality of columns

3   having at least one entry containing text data the system comprising:

4   means for obtaining the at least one entry of the at least one column;

5   means coupled with the obtaining means for abbreviating a width of the at least

6   one entry; and

7   means coupled with the abbreviating means for displaying the at least one entry.

1   72.   The system of claim 71 wherein the at least one entry includes at least one

2   column heading.

1   73.   The system of claim 72 wherein the at least one column heading further includes

2   a plurality of characters and wherein the abbreviating means further comprise:

3   means for determining a character type for at least one of the plurality of

4   characters, the character type including a first character type, a second character type,

5   and a third character type;

6   means coupled with the determining means for removing the at least one of the

7   plurality of characters if the character type is the first character type and if the width of

8   the at least one column heading is greater than a particular width;

9   means coupled with the determining means for removing the at least one

10   character if the character type is a second character type and if the width of the at least

11   one column heading is greater than the particular width, the second character type

12   being a lower case character;

13   means coupled with the determining means for removing the at least one

14   character if the character type is a third character type and if the width of the at least one

15   column heading is greater than the particular width, the third character type being a

16   space; and

17   means coupled with the determining means for truncating the column heading if

18   the width of the at least one column heading is greater than the particular width and if the

19   at least one column heading does not contain any character of the first character type,

20   the second character type or the third character type.

1   82.   A computer method to abbreviate a character string comprising the acts of:

2   1.   defining N character types, N greater than 1;

3   2.   providing the character string;

4   3.   abbreviating the character string by

5   (c_1)   removing at least a first character if the character string includes

6   the at least first character that is defined as a character type of the

7   N character types.

8   (c_2)   removing at least a second character if the character string

9   includes the at least second character that is defined as a

10   character type of the N character types; and

11. (c_3) removing at least a third character if the character string includes

12   the at least third character that is defined as a character type of the

13   N character types.

1   83.   The computer method of Claim 82 further including the acts of defining a

2   character string size having a predetermined number of characters to be in the

3   abbreviated character string;

4   at the completion of each of the act C_1, C_2 and C_3 comparing a remaining

5   portion of the character string with the character string size and terminating character

6   removal if the remaining portion of the character string equals the character string size.

1   84.   The method of Claim 43 wherein the abbreviating step further includes the steps

2   of sequentially removing predetermined individual characters until the at least one entry

has a width equivalent to a predetermined number of characteristics.